AMENDMENTS TO THE CLAIMS

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1. (Currently amended) A method for detecting endotoxin, comprising the steps:

   a) incubating a sample with an isolated p12 ~~or p12-similar~~ bacteriophage tail protein ~~that binds to the core region of endotoxin~~, and

   b) detecting endotoxin bonded to said bacteriophage tail protein, in the presence of divalent cations.

2. (Currently amended) The method according to claim 1, further comprising after step a) and prior to step b) the additional step of:

   a') separating a p12 bacteriophage tail protein-endotoxin complex from the sample.

3. (Previously presented) The method according to claim 1, wherein detection comprises spectroscopic methods.

4. (Currently amended) A method for removing endotoxin from a sample, comprising the steps:

   a) incubating a sample with or bringing a sample in contact with an isolated p12 ~~or p12-similar~~ bacteriophage tail protein ~~that binds to the core region of endotoxin~~, said p12 bacteriophage tail protein being immobilised on a permanent carrier, non-specifically or directly, in the presence of bivalent ions,

   b) separating p12 bacteriophage tail protein-endotoxin complex from the sample

   wherein the permanent carrier comprises filtration media, glass particles, magnetic particles, agarose particles, sedimentation materials or filling materials for chromatography columns.

5. (Previously presented) The method according to claim 4, wherein steps a) and b) are implemented in a chromatography column throughflow method.

6. (Canceled)

7. (Currently amended) The method according to claim 4, the p12 bacteriophage tail proteins being immobilised on the permanent carrier via coupling groups.

8. (Previously presented) The method according to claim 7, the coupling group being a lectin, receptor or anticalin.

9. (Currently amended) The method according to claim 7, wherein the coupling group comprises streptavidin or avidin and the p12 bacteriophage tail proteins are coupled with biotin or a Strep-tag.

10. (Currently amended) The method according to claim 4, the p12 bacteriophage tail proteins are immobilised on the permanent carrier covalently via chemical bonds.

11. (Currently amended) The method according to claim 1, wherein the p12 bacteriophage tail protein comprises a Strep-tag or a His-tag.

12. (Previously presented) The method according to claim 1, wherein the tag comprises an amino acid sequence according to SEQ ID NO. 5, 6 or 7.

13. (Currently amended) The method according claim 1, wherein the p12 bacteriophage tail protein is p12 protein of phage T4 and comprises a Strep-tag or a His-tag.

14. (Previously presented) The method according to claim 1, wherein the bivalent cations are Ca^{2+} in the range of 0.1 μM to 10 mM.

15. (Currently amended) The method according to claim 1, wherein detecting comprises detecting displacement of a fluorescence-marked endotoxin from said p12 bacteriophage tail protein of step a).

16. (Currently amended) The method according to claim 4, wherein the p12 bacteriophage tail protein comprises a Strep-tag or a His-tag.

17. (Previously presented) The method according to claim 4, wherein the tag comprises an amino acid sequence according to SEQ ID NO. 5, 6 or 7.

18. (Currently amended) The method according claim 4, wherein the p12 bacteriophage tail protein is p12 protein of phage T4 and comprises a Strep-tag or His-tag.